

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 222160-, Jefferson County
EDS-545(31)
US 1/SR 4 Improvements
OFFICE Preconstruction
DATE January 2, 2007
FROM *Genetha Rice-Singleton*
Genetha Rice-Singleton, Assistant Director of Preconstruction
TO *for-* SEE DISTRIBUTION

SUBJECT APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

GRS/cj

Attachment

DISTRIBUTION:

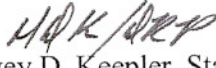
Brian Summers
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Joe Palladi (file copy)
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BOARD MEMBER

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE EDS-545(31), Jefferson County **OFFICE** Environment/Location
PI # 222160

DATE November 1, 2006

FROM  Harvey D. Keepler, State Environmental/Location Engineer

TO Genetha Rice-Singleton, Assistant Director of Preconstruction

SUBJECT **Revised Project Concept Report – US 1/SR 4 Improvements**

Attached is the original copy of the revised Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP).

For EDS-545(31), the proposed changes to the approved concept would be revisions to the alignment, typical section, design speed, and right-of-way. The approved alignment, typical section, and right-of-way would be revised to avoid resources eligible for the National Register of Historic Places and to reduce displacements. The design speed would be revised due to the change in the typical section.

This project is part of the Department's Governor's Road Improvement Program (GRIP). This revised concept as presented herein and submitted for approval is not currently listed in the Department's State Transportation Improvement Program (STIP), but is consistent with the Department's Construction Work Program (CWP).

DATE 12/19/06


State Transportation Planning Administrator

Distribution:

Brian Summers – State Project Review Engineer
Keith Golden – State Traffic Safety and Design Engineer
Angela T. Alexander – State Transportation Planning Administrator
Jamie Simpson – State Transportation Financial Management Administrator
Babs Abubakari – State Consultant Design Engineer
Mike Thomas – Tennille District Engineer

REVISED PROJECT CONCEPT REPORT

EDS-545(31) – JEFFERSON CO.

Need and Purpose: US 1/SR 4 is the major north-south corridor in southeast Georgia. The proposed project, EDS-545(31) would widen and reconstruct US 1/SR 4 from CR 325/Clarks Mill Road to CR 138/Mennonite Church Road. The existing roadway is reaching capacity and improvements would be required to maintain an acceptable level of service. Improvements would also eliminate congestion, enhance the traffic flow, and increase capacity while improving the operational characteristics and the safety along US 1/SR 4.

The US 1/SR 4 Improvements are part of the Governor's Road Improvement Program (GRIP). GRIP was initiated in the 1980's to address the importance of stimulating economic growth via an improved transportation network. It identified a system of economic development highways that consist of existing primary routes, plus additional truck connector routes. The system would place 98 percent of the state's population within 20 miles of a multi-lane highway. It would provide access for oversized trucks to cities having populations between 2,000 people and 5,000 people. Among the many benefits of such a system, areas lagging in growth would be provided greater opportunities to attract industry, business and jobs.

Project Location: EDS-545(31) would be located along US 1/SR 4 and would begin at milepost 14.60 and end at milepost 20.36 in Jefferson County.

Description of the approved concept: The approved concept for EDS-545(31) in Jefferson County is proposed to widen and reconstruct US 1/SR 4 from CR 325/Clarks Mill Road to CR 138/Mennonite Church Road in Jefferson County. From the beginning terminus at CR 325/Clarks Mill Road, just north of Louisville, improvements would proceed northward along US 1/SR 4 as east side widening consisting of a 4 lane, 14-foot flush median urban typical section to CR 304/Country Club Drive. The alignment would then taper out to a 4 lane rural typical section with a 44-foot grassed median, holding east side widening for approximately 1.0 mile to minimize displacements, then shift to west side widening approximately 3200 feet south of CR 142/Bridges Road to avoid an eligible historic resource on the east side. The alignment would then transition to east side widening to avoid impacting a 2nd eligible historic resource at CR 142/Bridges Road then shift back to west side widening to avoid impacting a cemetery and church located on the east side of the alignment. West side widening would continue for approximately 2200 feet, then shift to east side widening just south of SR 296/Harvey Street to avoid impacts to a memorial gardens and cemetery on the west side of the alignment. To enhance the safety of the intersection at SR 296/Harvey Street and US 1/SR 4, SR 296 would be relocated to intersect US 1/SR 4 approximately 1100 feet north of the existing intersection. East side widening would continue to just south of CR 136/Mae Lamb Farm Road, where the alignment would shift to west side widening to avoid impacting a 3rd eligible historic resource, and continue to just north of CR 397/Butts Road. The alignment would then shift back to east side widening for the remainder of the project, ending at CR 138/Mennonite Church Road. Existing right-of-way along US 1/SR 4 is 130 feet. The proposed right-of-way would vary from 130 feet to 250 feet for the length of the project. The speed design would vary from 45 mph to 65 mph, and access would be by permit. The project length would be approximately 5.8 miles.

PDP Classification: Major/Construction on existing roadway.

Full Oversight ()

Exempt (X)

SF ()

Other ()

Functional Classification: Rural Principal Arterial

U. S. Route Number(s): 001

State Route Number(s): 04

Traffic (AADT) as shown in the approved concept:

Current Traffic
Year: 2010 ADT: 9,400-15,500

Design Traffic
Year: 2030 ADT: 14,900-24,500

Proposed features to be revised:

Project Alignment: The approved concept alignment for a portion of the project is proposed to be revised in order to minimize property impacts and avoid impacting a resource recently determined to be eligible for the National Register of Historic Places.

Typical Section: The approved typical section for a portion of the project is proposed to be revised to avoid impacting eligible historic resources.

Design Speed: The approved design speed would be revised because of the proposed changes in the typical section.

Right-of-Way: The approved right-of-way (widening project) would be revised because of the proposed change in typical section.

Revised feature(s) to be approved:

Project Alignment/Typical Section: The approved urban 4 lane with a 14-foot flush median, which would begin at CR 325/Clarks Mill Road and end at CR 304/Country Club Drive, is proposed to be extended approximately 1.4 miles north and the proposed alignment within the 1.4 mile extension is proposed to be changed to symmetrical widening. These proposed changes would allow the project improvements to be contained within the existing right-of-way in order to avoid impacts to eligible historic resources and would also minimize displacements as well as property impacts. The proposed changes would extend 1.4 miles from CR 304/Country Club Drive to a point approximately 2800 feet south of CR 142/Bridges Road. The improvements would then proceed north as discussed in the description of the approved concept to the end of the project. The project length would be approximately 5.8 miles.

Design Speed: The design speed would be 45 mph for the section proposed as a 14-foot urban typical section with a flush median and 65 mph for the section proposed as a 44-foot rural typical section with a grassed median. A Design Variance is recommended to be requested in the design phase of this project's development for the 45 mph speed design outside of the Louisville city limits, which currently is posted at 55 mph.

Right-of-Way: Because of the proposed changes in the concept alignment, the proposed right-of-way would vary from 130 feet to 500 feet for the length of the project.

Updated traffic data (AADT):

Current Traffic		Design Traffic	
Year: 2011	AADT: 9,400 – 13,700	Year: 2031	AADT: 14,900 – 21,600

Programmed/Schedule:

P.E. FY 2002 R/W FY 2010 Construction LR

Revised Cost Estimates*:

Construction cost including inflation and E&C:	\$ 20,634,612.61
Right-of-way:	\$ 2,750,000.00
Utilities:	\$ 3,300,000.00

Is the project located in a Non-attainment area? Yes X No

Recommendation: It is recommended that the proposed revisions to this concept be approved for implementation.

HDK/EKP/mhb


Attachments:

Sketch Map
Typical Sections
Cost Estimate*

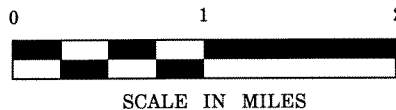
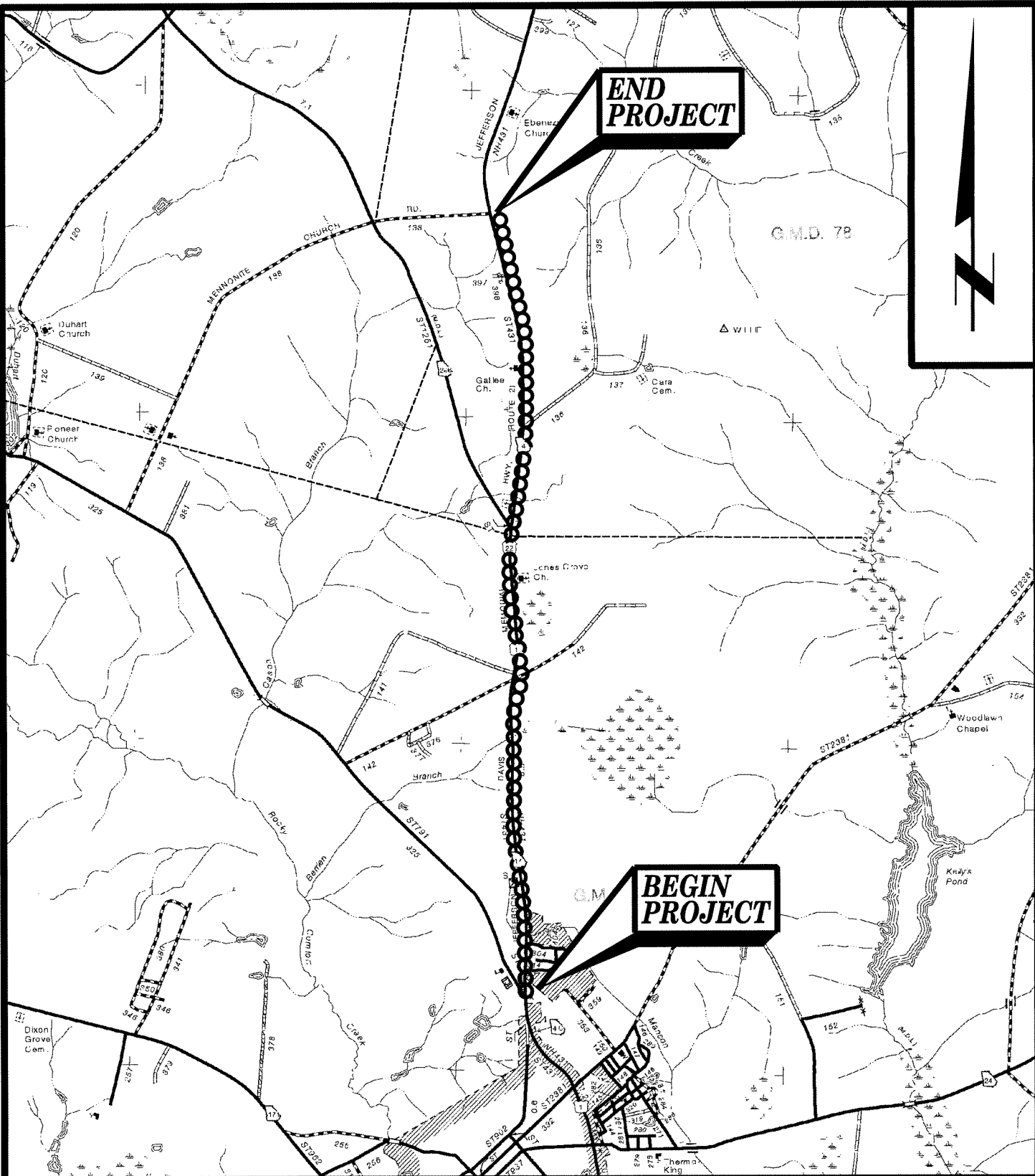
Concur: _____


Director of Preconstruction

Approve: _____


Chief Engineer

* Cost Estimate provided by Design Consultant Kimley-Horn



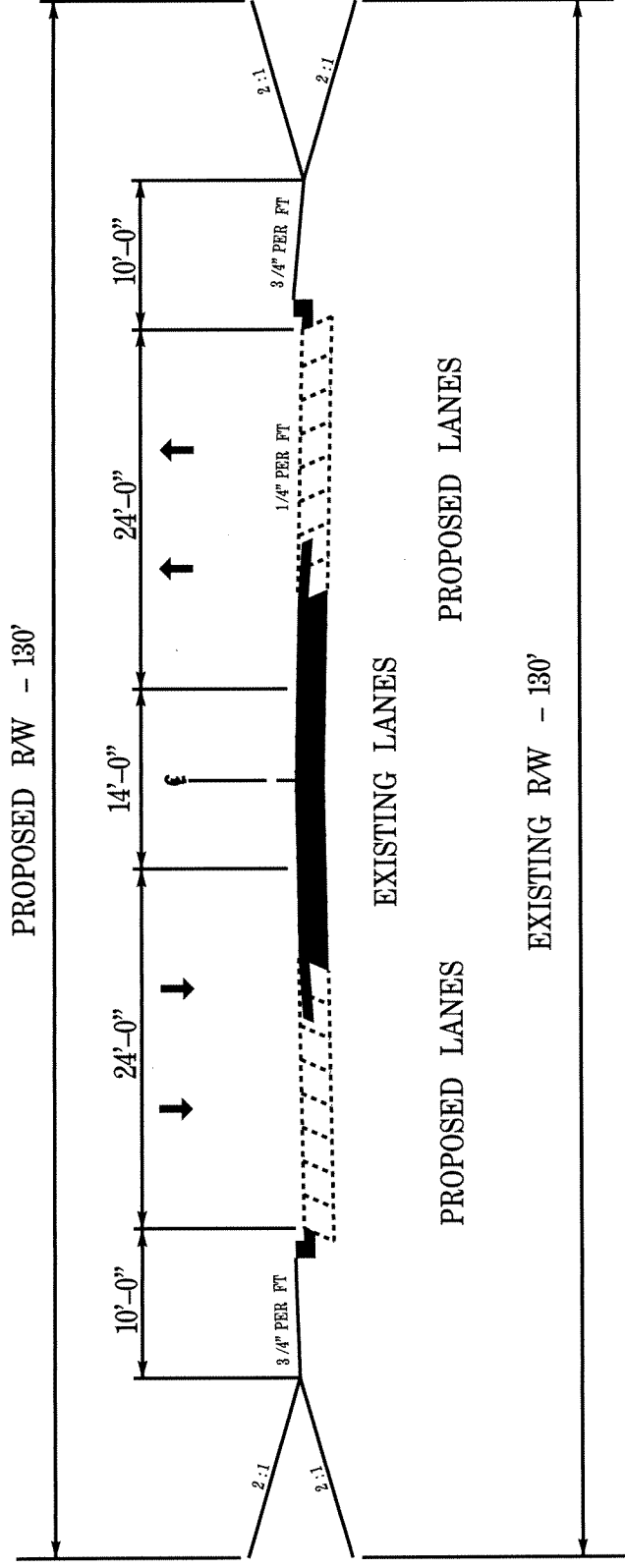
LOCATION

STRIP MAP

EDS-545(31)
US 1SR 4 IMPROVEMENTS
JEFFERSON COUNTY
P.I.# 222160

SOURCE: GENERAL HIGHWAY MAP, JEFFERSON CO., GEORGIA
PREPARED BY THE GEORGIA DEPARTMENT OF TRANSPORTATION, 1994

URBAN TYPICAL SECTION 4 LANE WITH A 14' FLUSH MEDIAN, CURB & GUTTER SYMMETRICAL WIDENING



EDS-545(31) JEFFERSON COUNTY US 1 IMPROVEMENTS

From CR 325/Clarks Mill Road to
 approximately 2800 feet south of
 CR 142/Bridges Road

NOT TO SCALE

44-FOOT DEPRESSED GRASS MEDIAN RURAL SECTION 65 MPH SPEED DESIGN



From approximately 2800 feet south
of CR 142/Bridges Road to the
end of Unit 31 at CR 138/
Mennonite Church Road

NOT TO SCALE

Estimate Report for file "222160"

Section Roadway					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	LS	500000.00	TRAFFIC CONTROL -	500000.00
153-1300	1	EA	62388.63	FIELD ENGINEERS OFFICE TP 3	62388.63
201-1500	1	LS	600000.00	CLEARING & GRUBBING -	600000.00
205-0001	227948	CY	5.50	UNCLASS EXCAV	1253714.00
310-1101	114801	TN	16.03	GR AGGR BASE CRS, INCL MATL	1840260.03
402-1812	13434	TN	80.00	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	1074720.00
402-3112	23471	TN	90.00	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	2112390.00
402-3113	21549	TN	85.00	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	1831665.00
402-3121	33698	TN	80.00	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	2695840.00
413-1000	13499	GL	1.50	BITUM TACK COAT	20248.50
441-0104	11314	SY	29.55	CONC SIDEWALK, 4 IN	334328.70
441-6022	30610	LF	17.32	CONC CURB & GUTTER, 6 IN X 30 IN, TP 2	530165.20
456-2015	11	GLM	780.54	INDENTATION RUMBLE STRIPS - GROUND-IN-PLACE (SKIP)	8585.94
634-1200	214	EA	94.35	RIGHT OF WAY MARKERS	20190.90
641-1200	2028	LF	15.63	GUARDRAIL, TP W	31697.64
641-5001	4	EA	542.48	GUARDRAIL ANCHORAGE, TP 1	2169.92
641-5012	2	EA	1688.00	GUARDRAIL ANCHORAGE, TP 12	3376.00
Section Sub Total:					\$12,921,740.46

Section Drainage					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
207-0203	113	CY	40.23	FOUND BKFILL MATL, TP II	4545.99
500-3101	240	CY	505.57	CLASS A CONCRETE	121336.80
511-1000	26600	LB	0.85	BAR REINF STEEL	22610.00
550-1180	17693	LF	34.88	STORM DRAIN PIPE, 18 IN, H 1-10	617131.84
550-1240	2302	LF	43.96	STORM DRAIN PIPE, 24 IN, H 1-10	101195.92
550-1300	428	LF	53.88	STORM DRAIN PIPE, 30 IN, H 1-10	23060.64
550-1360	360	LF	65.70	STORM DRAIN PIPE, 36 IN, H 1-10	23652.00
550-1420	208	LF	87.64	STORM DRAIN PIPE, 42 IN, H 1-10	18229.12
550-1480	136	LF	106.20	STORM DRAIN PIPE, 48 IN, H 1-10	14443.20
550-2180	526	LF	26.67	SIDE DRAIN PIPE, 18 IN, H 1-10	14028.42
550-2240	234	LF	30.80	SIDE DRAIN PIPE, 24 IN, H 1-10	7207.20
550-2300	298	LF	35.90	SIDE DRAIN PIPE, 30 IN, H 1-10	10698.20
550-3518	48	EA	609.61	SAFETY END SECTION 18 IN, STORM DRAIN, 6:1 SLOPE	29261.28
550-3524	14	EA	998.95	SAFETY END SECTION 24 IN, STORM DRAIN, 6:1 SLOPE	13985.30
550-3530	8	EA	1543.55	SAFETY END SECTION 30 IN, STORM DRAIN, 6:1 SLOPE	12348.40
550-4218	85	EA	547.28	FLARED END SECTION 18 IN, STORM DRAIN	46518.80
550-4224	10	EA	625.01	FLARED END SECTION 24 IN, STORM DRAIN	6250.10
550-4230	6	EA	713.95	FLARED END SECTION 30 IN, STORM DRAIN	4283.70
550-4236	4	EA	1019.32	FLARED END SECTION 36 IN, STORM DRAIN	4077.28
550-4242	2	EA	1262.50	FLARED END SECTION 42 IN, STORM DRAIN	2525.00
573-2006	3000	LF	14.98	UNDDR PIPE INCL DRAINAGE AGGR, 6 IN	44940.00
576-1018	1000	LF	25.91	SLOPE DRAIN PIPE, 18 IN	25910.00
603-2024	88	SY	46.05	STN DUMPED RIP RAP, TP 1, 24 IN	4052.40
603-2180	87	SY	34.61	STN DUMPED RIP RAP, TP 3, 12 IN	3011.07
603-7000	175	SY	4.26	PLASTIC FILTER FABRIC	745.50
610-9099	4	LS	4251.86	REM WINGWALLS & PARAPETS, STA -	17007.44
610-9230	2	LS	11092.58	REM CLVT, CONCRETE, STA -	22185.16
668-1100	112	EA	1889.15	CATCH BASIN, GP 1	211584.80
668-2100	67	EA	2815.15	DROP INLET, GP 1	188615.05
668-4300	1	EA	1956.28	STORM SEWER MANHOLE, TP 1	1956.28
Section Sub Total:					\$1,617,396.89

Section Erosion Control - Permanent					
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Item Number	Quantity	Units	Unit Price	Item Description	Cost
700-6910	82	AC	831.15	PERMANENT GRASSING	68154.30
700-7000	82	TN	58.94	AGRICULTURAL LIME	4833.08
700-7010	205	GL	18.60	LIQUID LIME	3813.00
700-8000	58	TN	287.59	FERTILIZER MIXED GRADE	16680.22
700-8100	4100	LB	1.68	FERTILIZER NITROGEN CONTENT	6888.00
716-2000	720074	SY	1.12	EROSION CONTROL MATS, SLOPES	806482.88
Section Sub Total:					\$906,851.48

Section Erosion Control - Temporary

Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0232	41	AC	519.89	TEMPORARY GRASSING	21315.49
163-0240	369	TN	203.83	MULCH	75213.27
163-0300	30	EA	1810.59	CONSTRUCTION EXIT	54317.70
163-0503	73	EA	515.98	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 3	37666.54
163-0520	154	LF	14.04	CONSTRUCT AND REMOVE TEMPORARY PIPE SLOPE DRAIN	2162.16
163-0530	21300	LF	3.02	CONSTRUCT AND REMOVE BALED STRAW EROSION CHECK	64326.00
163-0531	18	EA	7882.30	CONSTRUCT AND REMOVE SEDIMENT BASIN, TP 1, STA NO -	141881.40
165-0010	16767	LF	1.06	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	17773.02
165-0030	3484	LF	1.34	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	4668.56
165-0060	36	EA	1047.03	MAINTENANCE OF TEMPORARY SEDIMENT BASIN, STA NO -	37693.08
165-0070	10650	LF	1.76	MAINTENANCE OF BALED STRAW EROSION CHECK	18744.00
165-0087	73	EA	170.47	MAINTENANCE OF SILT CONTROL GATE, TP 3	12444.31
165-0101	30	EA	481.12	MAINTENANCE OF CONSTRUCTION EXIT	14433.60
167-1000	2	EA	1560.81	WATER QUALITY MONITORING AND SAMPLING	3121.62
167-1500	24	MO	926.02	WATER QUALITY INSPECTIONS	22224.48
171-0010	33534	LF	1.93	TEMPORARY SILT FENCE, TYPE A	64720.62
171-0030	6968	LF	3.31	TEMPORARY SILT FENCE, TYPE C	23064.08
Section Sub Total:					\$615,769.93

Section Signing & Marking

Item Number	Quantity	Units	Unit Price	Item Description	Cost
636-1020	595	SF	14.35	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 3	8538.25
636-1031	150	SF	21.19	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING TP 6	3178.50
636-2070	1222	LF	7.41	GALV STEEL POSTS, TP 7	9055.02
636-2080	1950	LF	9.22	GALV STEEL POSTS, TP 8	17979.00
653-0120	65	EA	63.09	THERMOPLASTIC PVMT MARKING, ARROW, TP 2	4100.85
653-0170	45	EA	77.52	THERMOPLASTIC PVMT MARKING, ARROW, TP 7	3488.40
653-1501	131690	LF	0.30	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	39507.00
653-1704	272	LF	3.80	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	1033.60
653-1804	485	LF	1.75	THERMOPLASTIC SOLID TRAF STRIPE, 8 IN, WHITE	848.75
653-3501	61737	GLF	0.19	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	11730.03
653-6004	15324	SY	2.61	THERMOPLASTIC TRAF STRIPING, WHITE	39995.64
654-1001	919	EA	3.58	RAISED PVMT MARKERS TP 1	3290.02
Section Sub Total:					\$142,745.06

Total Estimated Cost: \$16,204,503.82**Subtotal Construction Cost \$16,204,503.82**

E&C Rate 10.0 %	\$1,620,450.38
Inflation Rate 5.0 % @ 3.0 Years	\$2,809,658.41

Total Construction Cost	\$20,634,612.61
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Right Of Way	\$2,750,000.00
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ReImb. Utilities	\$3,300,000.00
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Grand Total Project Cost	\$26,684,612.61
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